



## The 8<sup>th</sup> RIHN International Symposium

Risk Societies, Edge Environments: Ecosystems and Livelihoods in the Balance

October 23-25, 2013

How do societies conceptualize the significance of environmental change? How do they respond? In recent years we have learned that humanity is in danger of transgressing the planetary 'boundaries' that describe the environmental conditions of the Holocene, the geological period in which all civilization has arisen. Similarly, some claim that humanity is now a determinant ecological force, and that the Earth has therefore entered a new geological epoch, the Anthropocene. Such concepts indicate that humanity now confronts increasing uncertainty in regard to the environmental cycles on which human societies depend, and that societies themselves are a major source of this uncertainty.

Scientists and citizens seek ways of describing such uncertainty and balancing it against the basic social need to plan for the future. The concept of risk allows conceptualization and estimation of the

potential social, economic and Environmental 'losses' that can be associated with contemporary environmental change. It can be applied to extreme events such as flood, fire, and drought, or it can refer to the dangers of ecosystem degradation or environmental pollution. In any case, the concept of risk also refers to the costs of social action—or inaction—in relation to environmental change.

Based on the research of three RIHN projects and organized in collaboration with the RIHN Communications Unit, this symposium examined social and ecological risk in several 'edge' environments, boundary zones that typically exhibit high rates of biodiversity and many livelihood niches, but that are also particularly



susceptible to change. Drawing on extensive project research in the arid lands of Eastern and Northern Africa, the Siberian arctic, and the watershed environments of Lake Laguna, Philippines, the symposium asked us to examine how contemporary environmental change and climatic uncertainty is interwoven with social change and human well being.

### Water Ethics

#### A Values Approach to Solving the Water Crisis

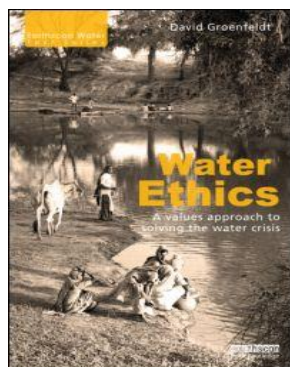
*By David Groenfeldt -Visiting Research Fellow*

My book on Water Ethics is concerned with "why" we manage water in certain ways, whether we are dealing with rivers, irrigation systems, urban water supply systems, or industrial water use. River management in particular has undergone a paradigm shift from an almost religious zeal to build dams and straighten river channels, to a more peaceful co-existence with rivers.

Effective water governance requires a shared values and understandings. Is a river considered to be an economic factor of production, or is it a sacred deity? The water ethics of Indigenous Peoples normally support the latter view. When the dominant society consults with Indigenous peoples about water

development plans, the relationship is problematic because of these very different value systems.

An understanding of water ethics can help society forge a new sustainable relationship



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with rivers, and with all of nature. The concept of integrated water resources management (IWRM) provides a useful framework to which specific ethical principles, such as rights of nature, cultural sovereignty, and equitable access to water, can be added. Through promoting a water ethic which respects ecological functions and at the same time supports sustainable economic development, the water sector can help lead the way to "Future Earth". The key step is to recognize that ethics are an inherent dimension of water policies, and of environmental policies generally. Once we identify what those ethics are, we can decide whether those are the ethics we want, and if not, we can work to change them! For details, see the website of the Water Ethics Network (<http://waterethics.org>), or **read my book!**



## Recent Events

**Workshop “Our Global Environmental Research for Humanity”,**  
RIHN, August 23

**International Workshop on “Future Earth in China”**  
September 26-27, Beijing:

**RIHN International Symposium,** October 23-25, RIHN

**International Research Development Workshop: “Transdisciplinarity in Action”**  
November 14-15, RIHN

**RIHN Lecture-series 1 – 8**  
**“Towards a Transformative sustainability Science: Future Earth and Other Frontiers in environmental studies ”**  
18<sup>th</sup> October – 20<sup>th</sup> December @ RIHN  
Speaker: Prof. Sander Van Der Leeuw  
[http://www.chikyu.ac.jp/rihn\\_e/events/2013/131018-1220.html](http://www.chikyu.ac.jp/rihn_e/events/2013/131018-1220.html)

## Upcoming Events

**The 3<sup>rd</sup> Stable Isotope Environmental Science Symposium**  
17<sup>th</sup> -18<sup>th</sup> December, RIHN

**Exhibition :Surviving in the Desert: strategies of human, Plant & Animal**  
23<sup>rd</sup> November – 09<sup>th</sup> February  
National Museum of Nature & Science  
Produced by Nawata project of RIHN  
<http://www.kahaku.go.jp/event/2013/11desert/>

**The 2<sup>nd</sup> International workshop “Future Earth in Asia”,** 4<sup>th</sup> -5<sup>th</sup> February, Kyoto

You can visit our homepage for further information on events and news ([http://www.chikyu.ac.jp/index\\_e.html](http://www.chikyu.ac.jp/index_e.html))  
You can also send us your feedback about our RIHN News and also share your questions, comments,  
**E-mail: [rihn-news\[at\]chikyu.ac.jp](mailto:rihn-news[at]chikyu.ac.jp)**  
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## RIHN-LAKEHEAD COMMUNITY FORUM 2013

### in Los Banos, The Philippines

The Managing Environmental Risks to Food and Health Security in Asian Watersheds project investigates the links between environmental change, ecological degradation, food availability and quality, and human health. Research is conducted at Sta. Rosa Watershed and other sites in the Laguna Lake region in the Philippines, a highly populated and variegated region in which rich ecological resources are threatened by rapid land use change, urbanization and industrialization. The project organized its second LakeHEAD Community Forum in Los Banos on 7-8 November 2013. In 2012, the project launched “Yaman ng Lawa” as an active adaptive co-management approach for the sustainable management and utilization of lake resource. It serves as a platform for Laguna de Bay stakeholders to identify and provide solutions to the major issues confronting the Lake.

Based on the understanding that environmental protection / conservation and development can co-exist, the platform attaches importance to three key elements: (1) the participation of the community throughout the entire process, especially on lake management; (2) the value given to both traditional or local knowledge and modern technologies in the search for solutions to the problems of the lake, and (3) the use of active adaptive co-management as the approach for ensuring the sustainable utilization of Lake resources. At the Community Forum, researchers, community members, practitioners and government representatives came together to discuss waste management, eco-restoration, and community-based management of ecologically-related disease.

**Contact: Ryohei KADA,** Project Leader  
<http://www.chikyu.ac.jp/rihn/project/R-06.html>

## RIHN Lecture Series

### *Towards A Transformative Sustainability Science*

by *Sander van der Leeuw* - RIHN Visiting Fellow

Sander van der Leeuw was trained as an archaeologist and medieval historian at the University of Amsterdam. He is the founding director of the trans-disciplinary School of Human Evolution and Social Change at Arizona State University, and was dean of that University's School of Sustainability. He is currently co-director of ASU's Complex Adaptive Systems Initiative. In 2012, the United Nations Environment Program named van der Leeuw the “Champion of the Earth for Science and Innovation” for his work on human-environmental relations.

In a series of 7 lectures, Professor van der Leeuw presents his perspective on the history and future of sustainability studies, based on 25 years of fieldwork and theory development in Europe and the USA. The lectures cover: (1) how the development of human cognition enabled our technologies and societies to emerge and transform our environment, (2) how science has been part of this development, and (3) how it needs to change in order to help solve some of the present problems. He argues that for this to happen,



we need to (4) adopt a complex systems perspective that looks at processes, rather than phenomena, and at the emergence of the new, rather than the origins of the existing. To (5) fully enable us not only to learn from the past, but to also learn for the future we also need to mobilize the new tools of information technology, and we (6) need to develop intellectual fusion across disciplines.